

REMARKS

Status of the Claims

The pending Office Action addresses claims 1 and 4-25, however claims 7-10 and 20-21 are withdrawn from consideration. Remaining claims 1, 4-6, 11-19, and 22-25 stand rejected.

Interview Summary

Per the Examiner's request in the Interview Summary dated March 7, 2008, Applicant reminds the Examiner that she agreed to contact the Applicant after doing an updated search. Applicant also notes that as stated in the Interview Summary, the Examiner indicated she would call Applicant before mailing any further rejections.

Applicant is disappointed to have not received a phone call prior to receipt of this Office Action. The Examiner is encouraged to call Applicant to discuss any potential allowability of the claims.

Rejections Pursuant to 35 U.S.C. § 112

Claims 1, 4-6, 11-19, and 22-25 are rejected pursuant to 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner states that "it is unclear what the limitation 'length thereof' is referring back to in line 10 of claim 1, and line 10 of claim 23." Applicant respectfully disagrees.

Independent claim 1 includes the phrase "the top and bottom portions including inferior and superior surfaces, respectively, that extend from the recess to the first end and that taper away from one another toward the first end along an entire length thereof." The clause "that taper away from one another toward the first end along an entire length thereof" clearly has the subject "inferior and superior surfaces" with a predicate including 'length thereof.' Independent claim 23 includes the phrase "the inferior surface of the top portion and the superior surface of the bottom portion tapering away from one another toward the first terminal end along an entire length thereof between the recess and the terminal end." Simplified, this phrase indicates a device having "the inferior

surface...and the superior surface...tapering away from one another...along an entire length thereof.” It is thus clear to one of ordinary skill in the art that ‘length thereof’ in claims 1 and 23 refers to the inferior and superior surfaces, both of which taper away from each other along their entire respective lengths.

Accordingly, independent claims 1 and 23, and claims 4-6, 11-19, and 22-25 which depend therefrom, are not indefinite under § 112, second paragraph.

Rejections Pursuant to 35 U.S.C. § 103

Claims 1, 4-6, 11-18, and 22-25 are rejected pursuant to 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 4,620,533 (“Mears”) in view of U.S. Patent No. 5,746,741 (“Kraus”). Claims 1-6, 11-19, and 22-25 are rejected pursuant to 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,277,119 (“Walulik”) in view of Kraus. Applicant respectfully disagrees.

At the outset, Applicant notes that claims 2 and 3 are rejected by the Examiner as unpatentable over Walulik in view of Kraus, but claims 2 and 3 were previously cancelled.

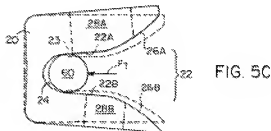
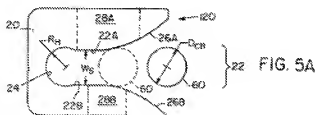
Independent claim 1 recites, in part, a clamp member having top and bottom portions with a recess formed there between. The top and bottom portions include first and second ends, and the second ends are connected to one another such that the top and bottom portions are movable between an open position in which the top and bottom portions are spaced a distance apart from one another, and a closed position in which the clamp member is adapted to engage a spinal fixation element disposed within the recess. The top and bottom portions also include inferior and superior surfaces, respectively, that extend from the recess to the first end and that taper away from one another toward the first end along an entire length thereof. Independent claim 23 recites, in part, a clamp member having top and bottom portions with first and second terminal ends. The top and bottom portions are connected to one another at the second terminal end thereof such that the top and bottom portions are movable between an open position and a closed position. A recess is formed between an inferior surface of the top portion of the clamp member and a superior surface of the bottom portion of the clamp member. Similar to claim 1, the inferior surface of the top portion and the superior surface of the bottom portion taper away from one another toward the first terminal

end along an entire length thereof between the recess and the first terminal end.

The Examiner relies on Mears and Walulik as primary references to teach the claimed invention but admits that neither Mears nor Walulik disclose superior and inferior surfaces of the bottom and top portions tapering away from each other. The Examiner thus relies on Kraus for this feature.

Kraus Does Not Remedy the Deficiencies of Mears and Walulik

Even if Mears and/or Walulik could be combined with Kraus, none of Mears, Walulik, and Kraus, alone or in any combination, teach or suggest superior and inferior surfaces of the bottom and top portions tapering away from each other *along an entire length thereof*. The Examiner points to Figure 5C as showing that Kraus teaches superior and inferior surfaces of the bottom and top portions tapering away from each other. However, as clearly shown below in Figure 5C and in Figure 5A which shows a less obscured view of the clamp's deformation during insertion of rod (60), the faces of the slot (22) do not taper away from each *along an entire length thereof*. Indeed, Kraus specifically discloses that the faces of the slot (22A, 22B) are not tapering but are parallel, with surfaces of the slot (22) only tapering along a partial length near its front face (26A, 26B). *See* Col. 7, lines 4-16.



Similarity to Previous Rejection

Moreover, Applicant is very confused by the Examiner's rejection.

In the immediately prior Office Action dated November 23, 2007, the Examiner rejected independent claims 1 and 23 over Mears in view of U.S. Patent No. 6,413,257 (“Lin”) and over Walulik in view of Lin. The Examiner stated on pages 4-5 and 8 of the November 23, 2007 Office

Action that neither Mears nor Walulik teach “the superior and inferior surfaces of the top and bottom portions tapering away from each other” and thus relied on Lin for that feature. In Applicant’s response dated February 25, 2008 to which the present Office Action responds, Applicant presented arguments specifying why no person having ordinary skill in the art would modify the clamp of Mears or the clamp of Walulik such that, as generally recited in claims 1 and 23, the top and bottom portions include inferior and superior surfaces, respectively, that taper away from one another along the entire length from a recess at one end of the clamp to the other end of the clamp.

In the present Office Action, the Examiner again relies on Mears and Walulik as primary references and states the exact same deficiency of both references on pages 5 and 9, that neither Mears nor Walulik teach “the superior and inferior surfaces of the top and bottom portions tapering away from each other.” The Examiner relies on Kraus as a secondary reference instead of Lin, but the Examiner’s argument is essentially the same in both the November 23, 2007 Office Action and the present Office Action, with “Kraus” merely substituted for “Lin.” Using Mears as representative of the rejections of Mears and Walulik, compare the rejections below.

Page 5 of November 23, 2007 Office Action:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the device of Mears with superior and inferior surfaces of the top and bottom portions tapering away from each other toward the terminal end in view of Lin et al. in order to increase the clamping force.

Page 6 of the present Office Action:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the device of Mears with superior and inferior surfaces of the bottom and top portions tapering away from each other in view of Kraus et al. in order to more easily insert the fixation rod.

The Examiner provides a different reason for combining the references, “in order to more easily insert the fixation rod,” but the fact remains as previously argued by Applicant that modifying the clamps of both Mears and Walulik to have tapered inner surfaces would result in non-functional

devices.

The Examiner provides absolutely no refutation of Applicant's contention that so modifying the clamps of Mears and Walulik would result in non-functional devices. Indeed, the Examiner appears to have agreed with Applicant enough to withdraw the previous rejection and rely on new art, Kraus instead of Lin. Applicant thus maintains that so modifying Mears and Walulik would result in non-functioning devices and reemphasizes previous arguments.

No Person of Ordinary Skill in the Art Would Combine Kraus With Either Mears or Walulik

The strongest rationale for combining references is a recognition that some advantage of expected beneficial result would be produced by the combination. See MPEP § 2144. There is no advantage to modifying the clamp of Mears or the clamp of Walulik such that, as generally recited in independent claims 1 and 23, the top and bottom portions include inferior and superior surfaces, respectively, that taper away from one another along the entire length from a recess at one end of the clamp to the other end of the clamp. To the contrary, combining Mears or Walulik with Kraus would result in non-functioning clamps.

For illustration purposes, FIG. 1 below shows a generalized example of Walulik's clamp *modified* to have tapered inner surfaces in an open position, and FIG. 2 below shows the clamp of FIG. 1 in a closed position. As can be seen in FIG. 2, if the inner surfaces of the clamp are tapered, this will cause the outer surfaces to extend at an angle relative to one another when the clamp is closed. Such a configuration would cause the apertures to be misaligned, as shown, thus preventing a fastener from being inserted through the apertures to close the clamp. Furthermore, such a configuration would prevent the fastener from aligning with a corresponding component, as specifically required by Walulik. As explained at Col. 4, lines 17-23, 52-54 of Walulik, a threaded end (74) of the fastener (64) is specifically configuration to engage an internally threaded aperture of a cooperating component to *draw two components together* and secure the clamp (22), with a serrated portion of the fastener (64) also engaging a corresponding serrated portion (72) of the first end (76).

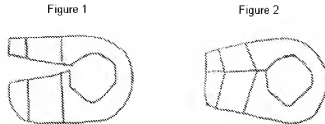
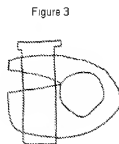


FIG. 3 further illustrates the clamp of Walulik *modified* to have tapering inner surfaces, showing a fastener inserted through the bores to close the fastener. As shown, the fastener would only be able to partially close the fastener. Once the inner surfaces near the recess touch, the clamp cannot further move. Secure clamping is thus not provided because the ends of the clamp opposite the recess do not and cannot touch because the fastener prevents any movement of the first and second ends other than parallel to each other.



It thus does not matter if the Examiner is correct or not whether modifying either Mears or Walulik with Kraus allows the fixation rod to be easily inserted because the modified clamps would simply not be functional for clamping the rod. Accordingly, no person having ordinary skill in the art would modify Walulik in view of Kraus.

The analysis above regarding Walulik in view of Kraus similarly applies to Mears in view of Kraus, and thus no person having ordinary skill in the art would modify Mears in view of Kraus. Like Walulik, modifying Mears to have tapered inner surfaces would render Mears' clamp unusable because if tapered inner surfaces were added, a fastener could not be inserted through the bores in the clamp in a fully closed position as shown in FIG. 2 above, or if a fastener is used it would not fully close the clamp as shown in FIG. 3 above. Moreover, the clamp would not properly align with adjacent components, as specifically intended, thus preventing a secure connection from being formed between the two components (20, 21).

Request Regarding Future Office Action(s)

If the Examiner maintains either of these rejections or makes a new rejection using Mears

and/or Walulik as the primary reference in a subsequent Office Action, clarification of the Examiner's rejection is respectfully requested with particular response to Applicant's arguments in order to develop a clear issue between the Examiner and Applicant. Furthermore, Applicant respectfully requests that any such Office Action be made non-final. *See* MPEP § 706.07.

Claims 1 and 23, as well as claims 4-6, 11-18, 22, and 24-25 which depend therefrom, therefore distinguish over Mears, Walulik, and Kraus, taken alone or in any combination, and represent allowable subject matter.

Conclusion

Applicant submits that all claims are in condition for allowance, and allowance thereof is respectfully requested. The Examiner is encouraged to telephone the undersigned attorney for Applicant if such communication is deemed to expedite prosecution of this application.

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Respectfully submitted,

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